DOCUMENT RESUME

ED 269 073 JC 860 217

AUTHOR Parrott, Marietta
TITLE Correlation of Social Science Students' Grade Outcome with Reading and Writing Scores.
INSTITUTION College of the Sequoias, Visalia, CA. Office of Institutional Research.
PUB DATE Jul 82
NOTE 28p.
PUB TYPE Reports - Research/Technical (143)

EDRS PRICE MF01/PC02 Plus Postage.
DESCRIPTORS Academic Achievement; Community Colleges; *Grades (Scholastic); *Predictor Variables; *Reading Achievement; *Reading Skills; Screening Tests; *Social Sciences; Student Placement; Two Year Colleges; *Writing Skills

ABSTRACT

A study was conducted at College of the Sequoias (COS) to examine the entry-level reading and writing skills of students and their grade outcomes in the social science courses for which they were enrolled. The study sought to identify any predictors of students' eventual success/non-success in class. The study focused on the placement test scores and course grades of 409 students enrolled in spring 1982 in selected social science courses. Study findings included the following: (1) in five of seven courses, the mean reading score decreased as the course grade decreased; (2) the mean reading score for the 10 students who received an "F" was higher than the overall mean score for the entire sample; (3) for all courses, except the political science course, the mean reading score for the students receiving non-credit grades was lower than the mean reading score for students receiving credit grades; and (4) significant relationships were found between students' grade outcomes and their ability to read and write. (AYC)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

BEST COPY AVAILABLE

ED269073

CORRELATION OF SOCIAL SCIENCE STUDENTS' GRADE OUTCOME WITH READING AND WRITING SCORES

COLLEGE OF THE SEQUOIAS

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

D. L. Goodyear

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

U.S. DEPARTMENT OF EDUCATION
NATIONAL INSTITUTE OF EDUCATION
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

☐ This document has been reproduced as received from the person or organization originating it.

☒ Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official NIE position or policy.

RESEARCH

INSTITUTIONAL

JC 860 217

CORRELATION OF SOCIAL SCIENCE STUDENTS' GRADE OUTCOME WITH READING AND WRITING SCORES

Don Goodyear, Ed.D.
Director of Institutional Research

Prepared by
Marietta Parrott
Research Assistant

July 1982

TABLE OF CONTENTS

	PAGE
INTRODUCTION.	1
Research Questions.	3
FINDINGS.	4
CONCLUSIONS AND RECOMMENDATIONS	12
APPENDIX	
APPENDIX A Reading Tests	15

LIST OF TABLES

TABLE		PAGE
1	MEAN ($\bar{X}$) SCORES ON COS READING TEST FOR STUDENTS RECEIVING CREDIT GRADES (A-D) AND NON-CREDIT GRADES (F-W) BY GRADE	4
2	COMPARISONS OF MEAN ($\bar{X}$) COS TEST SCORES FOR STUDENTS RECEIVING CREDIT (CR) GRADES AND NON-CREDIT (NC) GRADES	6
3	MEAN ($\bar{X}$) COS TEST SCORES AND TEST SCORE CORRELATION (r) WITH COURSE GRADES (A-D)	7
4	CHI-SQUARED (χ^2) COMPARISON OF COS READING AND WRITING SAMPLE SCORES FOR STUDENTS RECEIVING HIGH (A-B) AND LOW (C-D) GRADES	8
5	MEAN ($\bar{X}$) SCORES ON NELSON-DENNY SUBTESTS FOR STUDENTS IN HISTORY 17B BY COURSE GRADE RECEIVED	9
6	COMPARISONS OF MEAN ($\bar{X}$) NELSON-DENNY TEST SCORES FOR STUDENTS IN HISTORY 17B RECEIVING CREDIT GRADES AND NON-CREDIT GRADES	10
7	CHI-SQUARED (χ^2) COMPARISONS OF NELSON-DENNY TEST SCORES FOR STUDENTS RECEIVING HIGH (A-B) AND LOW (C-D) GRADES	11

The study consists of 409 students who were enrolled in the Spring Semester 1982 at the College of the Sequoias in selected Social Science courses. A breakdown of those courses selected for study and the number of students who were involved in each of these areas is listed below:

COURSE	INSTRUCTOR	# OF STUDENTS	TEST USED
Geography 1	Scofield	74	COS
Philosophy 10B	Fischer	21	COS
Geography 1	Scofield	40	COS
History 4B	Fischer	16	COS
History 17B	Martin	110	Nelson-Denny*
Pol Sci 5	Bringhurst	19	COS
Pol Sci 5	Peterson	25	COS
Sociology 1A	Bivona	21	COS
Psychology 1A	Gehman	28	COS
Psychology 1A	Cole	30	COS
Psychology 1A	Hamilton	25	COS
TOTAL SAMPLE		409	

* The performance of 110 students in History 17B were analyzed by using their scores from the Nelson-Denny Test; the remaining 299 students' reading scores were taken from the COS Placement Test.

The growing concern among not only the Social Science Division but previously the English and Math Division led to the English Division establishing prerequisites for entry into all of their courses. The Math, Science and Engineering Division has formed a task force to explore the possibility of also establishing prerequisites for entry into their courses. It is natural that the Social Science Division would also try to examine a more efficient way of identifying students and developing prerequisites, if necessary, to insure a higher success rate among students. To address these concerns the following research questions were examined.

Research Questions

1. What is the mean ($\bar{X}$) reading score for students receiving "A", "B", "C", "D", "F", "W" grade in each Social Science course selected?

2. What is the mean ($\bar{X}$) reading score for students in each course studied and for the total sample of students studied?

3. Is there a significant difference in the reading level for students receiving credit grades "A" thru "D" and students receiving no credit grades "W" and "F" for each course?

4. Is there a significant difference in reading scores of the students in the total sample who received credit grades and no credit grades?

5. Is there a significant difference in the writing sample scores for students receiving credit grades and no credit grades in each of the courses studied?

6. Is there a significant difference in writing sample scores of students who received credit grades and no credit grades?

7. Is there a relationship between reading score and course grade received for the Social Science courses under study?

8. Is there a relationship between reading score and high or low grade received in the course for the sample of Social Science students being studied?

9. Is there a relationship between writing sample score and course grade received for the Social Science courses under study?

10. Is there a relationship between writing sample score and high or low grade received in the Social Science courses studied?

Placement Test scores and course grades were provided by the Social Science Division to the Department of Institutional Research. This data was entered into a test file and analyzed by using the statistical package for the Social Sciences (SPSS). Test score means ($\bar{X}$) were computed and "t" values were calculated to determine if significant differences existed in the reading scores of the sample studied. The Chi-Square (χ^2) statistic and Pearson Product-moment correlation (r) were used to determine if a significant relationship existed between course grade and reading and/or writing score.

FINDINGS

Table 1 - Mean ($\bar{X}$) Scores on COS Reading Test for Students Receiving Credit Grades (A-D) and Non-credit Grades (F, W) by Class

TABLE 1

MEAN ($\bar{X}$) SCORES ON COS READING TEST FOR STUDENTS RECEIVING CREDIT GRADES (A-D) AND NON-CREDIT GRADES (F, W) BY CLASS

	CREDIT GRADES (N=227)								NON-CREDIT GRADES (N=72)				TOTAL	
	A		B		C		D		F		W			
COURSE	$\bar{X}$	N	$\bar{X}$	N	$\bar{X}$	N	$\bar{X}$	N	$\bar{X}$	N	$\bar{X}$	N	$\bar{X}$	N
GEOG 1	84.8	9	74.3	16	69.5	18	48.1	10	68.7	3	42.8	18	63.0	74
PHIL 10B	74.5	2	75.5	11	91.0	1	83.0	1	-	-	60.8	6	72.3	21
GEOG 2	71.5	10	67.5	6	55.8	15	46.0	3	47.0	1	59.2	5	61.0	40
HIST 4B	74.5	2	82.4	5	65.8	4	83.0	1	-	-	49.3	4	69.0	16
POL SCI 5	-	-	62.1	9	48.5	16	36.0	5	60.0	3	59.5	11	53.4	44
SOC 1A	85.0	3	60.0	5	46.5	6	56.5	2	-	-	42.8	5	55.3	21
PSYCH 1A	68.9	15	58.6	21	53.9	16	29.5	15	56.7	3	38.8	13	51.1	83
ALL CLASSES	74.8	41	67.5	73	57.4	76	41.1	37	60.3	10	48.4	62	58.4	299

BEST COPY AVAILABLE

Five of the seven areas studied, where the COS Test was administered, the mean reading score decreased as the course grade decreased suggesting that a positive correlation may exist between course grade and reading score for these courses. This was not true, however, for the following courses: Philosophy 10B and History 4B; however, this may be a function of the small number of students receiving low grades. The mean reading score for all the students in the sample who took the COS Reading Test was $\bar{X} = 58.4$. The mean score for the courses studied ranged from a low of $\bar{X} = 51.1$ in Psychology 1A to a high of $\bar{X} = 72.3$ in Philosophy 10B.

It is interesting to note that the mean reading score for the 10 students who received an "F" was higher than the overall mean score for the entire sample, $\bar{X} = 60.3$ as compared to $\bar{X} = 58.4$. The explanation for this occurring may be students who received "F" in these courses failed to submit to the required procedure for dropping a course, and received a "D" instead of a "W" grade. The mean score for students receiving "W" grades was $\bar{X} = 48.4$, this mean is lower than the means of 74.8, 67.5, 57.4 for students receiving "A", "B", and "C" grades respectively; however, it is higher than the mean score for students receiving "D" grades, $\bar{X} = 41.1$.

Examination of Table 2 indicates that for the Social Science courses administering the COS Test the 227 students who received a credit grade in the course had a mean score of 61.11, the 72 students who received the non-credit grade had a mean reading score of 50.87. This difference was statistically significant at the .01 confidence level. The mean writing sample score for the 140 students receiving credit grades was 4.29, the mean score for the 45 students who received a non-credit grade was 3.89. This difference was significant at the .01 level.

Table 2 - Comparisons of Mean ($\bar{X}$) COS Test Scores for Students Receiving Credit (CR) Grades and Non-credit (NC) Grades

TABLE 2

COMPARISONS OF MEAN ($\bar{X}$) COS TEST SCORES FOR STUDENTS RECEIVING CREDIT (CR) GRADES AND NON-CREDIT (NC) GRADES

COURSE		N	READING ($\bar{X}$)	t value	WRITING (X)	t value
GEOG 1	NC	21	46.48		TEST NOT ADMINISTERED	
	CR	53	69.51	3.73**		
PHIL 10B	NC	6	60.83		4.73	
	CR	15	76.87	1.53	4.50	.60
GEOG 2	NC	6	57.17		TEST NOT ADMINISTERED	
	CR	34	61.62	.47		
HIST 4B	NC	4	49.25		4.00	
	CR	12	75.58	3.08**	4.42	1.03
POL SCI 5	NC	14	59.64		3.79	
	CR	30	50.50	1.12	4.17	1.17
SOC 1A	NC	5	42.80		2.80	
	CR	16	59.19	1.46	4.44	2.80**
PSYCH 1A	NC	16	42.19		4.06	
	CR	67	53.28	1.51	4.18	.46
ALL COURSES (Reading)						
	NC	72	50.07			
	CR	227	61.11	3.58**		
ALL COURSES (Writing)						
	NC	45			3.89	
	CR	140			4.29	2.42**

** statistically significant at .01 confidence level

For all courses, except Political Science 5, the mean reading score for the students receiving non-credit grades was lower than the mean reading score for students receiving credit grades in the course. For the Geography 1 class and the History 4B classes the differences were significant at the .01 level. The Sociology 1A class was the only class where a statistically significant difference between the mean writing sample score for those receiving credit grades and those non-receiving credit grades occurred.

Table 3 - Mean ($\bar{X}$) COS Test Scores and Test Score Correlation (r) with Course Grades (A-D)

TABLE 3

MEAN ($\bar{X}$) COS TEST SCORES AND TEST SCORE CORRELATION (r) WITH COURSE GRADES (A-D)

		READING		WRITING	
COURSE	N	$\bar{X}$	r	$\bar{X}$	r
GEOG 1 (SEC 1, 2)	74	63.0	.48	TEST NOT ADMINISTERED	
PHIL 10B (SEC 2)	21	72.3	-.18	4.67	.30
GEOG 2 (SEC 1)	40	61.0	.42	TEST NOT ADMINISTERED	
HIST 4B (SEC 1)	16	69.0	.15	4.31	.10
POL SCI 5 (SEC 1, 6)	44	53.4	.40	4.05	.39
SOC 1A (SEC 4)	21	55.3	.54	4.05	.51
PSYCH 1A (SEC 3, 5, B)	83	51.14	.50	4.16	.43
ALL COURSES	299	58.4	.44	4.19	.42

Table 3 provides the "r" value statistic indicating the degree of relationship between test scores and "A" thru "D" grades for each course. Overall for the 299 students who took the COS Test there was a correlation of .44 between reading score and "A" thru "D" grades received, and the correlation of .42 between writing sample score and "A" thru "D" grades received. This correlation can be be described as slight to moderate. The correlation between reading score and the course grade in Psychology 1A was even higher at r = +.50 as was the correlation for Geography 1 r = +.48. A slightly negative correlation existed between reading score and Philosophy 10B grade r = -.18.

BEST COPY AVAILABLE

Table 4 - COS TESTS - Chi-Squared (χ^2) Comparison of COS Reading and Writing Samples Scores for Students Receiving High (A-B) and Low (C-D) Grades

TABLE 4

COS TESTS

CHI-SQUARED (χ^2) COMPARISON OF COS READING AND WRITING SAMPLES SCORES FOR STUDENTS RECEIVING HIGH (A-B) AND LOW (C-D) GRADES

TEST SCORE	COURSE GRADE A-B		COURSE GRADE C-D		TOTAL		CHI-SQUARED
	f	%	f	%	f	%	χ^2
READING							
1-33%ile	5	14%	30	86%	35	15%	
34-66%ile	47	48%	52	52%	99	44%	
67-99%ile	62	67%	31	33%	93	41%	
TOTAL	114	50%	113	50%	227	100%	28.439**
WRITING SAMPLE							
1-3	4	15%	23	85%	27	19%	
4	21	47%	24	53%	45	32%	
5-6	48	71%	20	29%	68	49%	
TOTAL	73	52%	67	48%	140	100%	24.888**

** statistically significant at the .01 level of confidence

For the sample of students who took the COS Test 15% scored between the 1%ile and 33%ile, 44% scored between 34%ile and 66%ile, 41% scored between the 67%ile and 99%ile. Fifty percent (50%) of these 227 students studied received an "A" or "B" grade, 50% received a "C" or "D" grade. The Chi-Square (χ^2) = 28.439 indicates that there is a significant relationship between student reading level and grade outcome. Also significant is the relationship between the writing sample score and course grade received. Of the 140 recorded writing sample scores 19% received a score of 1 to 3, 32% received score 4 and 49% received the score of 5 to 6. Fifty-two percent (52%) received an "A" or "B" grade in the course and 48% received a "C" or "D" grade. The relationship between course grade

and writing sample score was significant at the .01 level. This indicates a direct relationship between the ability to write and eventual course outcome.

Table 5 - Mean ($\bar{X}$) Scores on Nelson-Denny Subtests for Students in History 17B by Course Grade Received

Table 5
Mean ($\bar{x}$) Scores on Nelson-Denny Subtests for
Students in History 17B by Course Grade Received

	Credit Grades								Non-Credit Grades				Total	
TEST	A $\bar{X}$	A %ile	B $\bar{X}$	B %ile	C $\bar{X}$	C %ile	D $\bar{X}$	D %ile	F $\bar{X}$	F %ile	W $\bar{X}$	W %ile	$\bar{X}$	%ile
Vocabulary	64.4	95	43.0	72	31.7	48	26.5	35	-	-	30.4	44	35.3	58
Comprehension	57.3	92	45.6	63	39.2	44	32.0	22	-	-	35.6	33	39.7	46
Total	121.6	96	88.6	71	70.9	46	58.5	27	-	-	65.9	37	75.1	52
N	8		21		26		6				49		110	

For the 110 students in the sample who took the Nelson-Denny Test the mean total score was 75.1, the mean score on the vocabulary test was 35.3 and the mean score on the comprehension test 39.7. Like the COS Test data the mean total score decreased as the grade in the course decreased. Students receiving an "A" in History had a mean total score of 121.6, while students receiving a "D" had a mean total score of 58.5. This relationship held for the vocabulary and the comprehension subtests where the mean scores ranged from 64.4 down to 26.5 on the vocabulary and from 57.3 down to 32.0 on the comprehension. There were no "F's" in History 17B, however, the mean test score for students receiving a "W" in the course was somewhat lower than the overall mean but not as high as the means for students receiving a "C" grade.

BEST COPY AVAILABLE

Table 6 - Comparisons of Mean ($\bar{X}$) Nelson-Denny Test Scores for Students in History 17B Receiving Credit Grades and Non-credit Grades

TABLE 6

COMPARISONS OF MEAN ($\bar{X}$) NELSON-DENNY TEST SCORES FOR STUDENTS IN HISTORY 17B RECEIVING CREDIT GRADES AND NON-CREDIT GRADES

	CREDIT (A-D)			NON-CREDIT (W, F)			
TEST	$\bar{X}$	%ile	N	$\bar{X}$	%ile	N	t Value
Vocabulary	39.3	66	61	30.4	44	49	2.92**
Comprehension	43.1	57	61	35.6	31	49	3.30**
Total	82.4	64	61	65.9	38	49	3.30**

** statistically significant at the .01 level of confidence

Of the 110 students who took the Nelson-Denny Test, 61 (or 55%) received an "A" thru "D" grade. The remaining 49 (or 45%) received a "W" or "F" grade. The mean total score for those receiving "A" thru "D" grade was 82.4; the mean for those receiving a non-credit grade was 65.9. This difference is significant at the .01 level. On the vocabulary subtests, the mean score for the students receiving a "A" thru "D" grade was 39.3 while the mean score for those receiving a "W" or "F" was 30.4, this difference was also statistically significant. On the comprehension subtest, the mean reading score was significantly different for students receiving an "A" thru "D" grade than those receiving a "W" or "F" grade.

BEST COPY AVAILABLE

Table 7 - NELSON-DENNY TEST - Chi-Squared (χ^2) Comparisons of Nelson-Denny Test Scores for Students Receiving High (A-B) and Low (C-D) Grades

TABLE 7

NELSON-DENNY TEST

CHI-SQUARED (χ^2) COMPARISONS OF NELSON-DENNY TEST SCORES FOR STUDENTS RECEIVING HIGH (A-B) AND LOW (C-D) GRADES

TEST SCORE	COURSE GRADE A-B		COURSE GRADE C-D		TOTAL		CHI-SQUARED
	f	%	f	%	f	%	χ^2
VOCABULARY							
1-33%ile	2	17%	10	83%	12	20%	
34-66%ile	6	26%	17	74%	23	38%	
67-99%ile	21	81%	5	19%	26	42%	
TOTAL	29	48%	32	52%	61	100%	20.342**
COMPREHENSION							
1-33%ile	6	30%	14	70%	20	33%	
34-66%ile	7	35%	13	65%	20	33%	
67-99%ile	16	76%	5	24%	21	34%	
TOTAL	29	48%	32	52%	61	100%	10.640**
TOTAL							
1-33%ile	3	20%	12	80%	15	25%	
34-66%ile	6	27%	16	73%	22	36%	
67-99%ile	20	83%	4	17%	24	39%	
TOTAL	29	48%	32	52%	61	100%	20.514**

** statistically significant at .01 confident level

Note: PERCENTILES ARE BASED ON NORMS FOR GRADE 13

For the 61 students enrolled in the selected Social Science courses who received "A", "B", "C", "D" grade, 25% had a total Nelson-Denny score between the 1%ile and the 33%ile, 36% scored between the 34%ile and 66%ile, and 39% scored between the 67%ile and 99%ile. Forty-eight percent (48%) received a grade of "A" or "B" while 52% received a grade of "C" or "D". The relationship between total reading score on the Nelson-Denny and high and low course grade was significant at the .01 level of confidence.

BEST COPY AVAILABLE

CONCLUSIONS AND RECOMMENDATIONS

The findings of this study involved transfer level students in Social Science classes which meet breadth requirements for the California State University and College system. It is important to realize that the type of students who enters these classes should probably be of a higher reading and writing level than the average non-transfer student at COS.

Although many factors are involved in a student's academic success this study reinforces the importance and significance of well developed reading and writing skills.

The study results demonstrate that grade outcome is positively related to student reading and writing ability in the Social Science breadth courses studied. The range of scores received by students who entered into the selective breadth requirement courses indicate a significant difference in ability levels among those enrolled in these transfer level courses. Such a heterogeneous grouping of abilities within a classroom not only makes instruction more difficult but penalizes the students of lesser ability who may not be capable of performing at the high level required in transfer courses. Compromising high level instruction in these classes to better accommodate the student of lesser ability could result in loss of interest among the higher ability students, and may limit their preparation which is necessary for transfer to a four-year college.

Recommendations are as follows:

1. The Social Science Division should use the report data to analyze its impact on course offerings and in considering the establishment of prerequisites into their courses.

2. One area that should be considered is the impact of establishing entrance level requirements in reading and writing skills. The reason this needs to be considered is that limited access to courses may reduce the number of students who qualify to take the class; consequently, the number of breadth requirement courses offered may decline significantly. When and if this occurs, a resulting need would exist for additional courses to be taught at a lower level. Thus, instructors would probably need to direct their teaching schedules to meet the new demands.

3. Cooperation and coordination with the English Department would be essential if prerequisites are established. The need for this would develop because of the increased demand for at least a minimum guaranteed competency level for students leaving different levels of English classes.

4. Establishment of a task force to develop reasonable entrance requirement levels for all breadth required classes should benefit the instructors and students in the Social Science Division by allowing transfer students a more intensified program at a higher level.

5. A final recommendation is that a task force be formed not only of instructors within the Social Science Division but possibly a committee headed by the Vice-President of Instruction which would coordinate the actions of various departments that are now concerned with entry level skills of students into their courses, i.e. English Department; Math, Science and Engineering; and/or any other department or programs which could benefit from this coordinated effort. This would be important not only because of the overall impact on both course offerings and on instructional assignments but also because it would alter students' access to classes. This would necessitate the creation of other sections of lower level classes so that students would enter each section with the basic competencies necessary for success.

READING TESTS

The tests used to measure students reading level were:

1. 1) Comparative Guidance and Placement Reading Test published by the College Entrance Examination Board, and 2) COS Writing Sample (developed by the English Department).

2. The Nelson-Denny Test

The scores on the CGP Test are in percentile (%ile) score and range from 1%ile to 99%ile. The score on the COS Writing Sample range from a low of 1 to a high of 6 and is scored by the English Department. The Nelson-Denny test score for the vocabulary and comprehensive subtests, and the total score were converted to %ile for the sale of uniformity.

CORRELATION OF SOCIAL SCIENCE STUDENTS' GRADE OUTCOME WITH READING AND WRITING SCORES

Supplementary Data on Students in
History 4A and Philosophy 10A
Fall 1982

Don Goodyear, Ed.D.
Director of Institutional Research

Prepared By
Marietta Parrott
Research Analyst

March 1983

TABLE 1.
MEAN($\bar{X}$) SCORES ON NELSON-DENNY SUBTESTS BY COURSE GRADE RECEIVED
FOR STUDENTS IN HISTORY 4A AND PHILOSOPHY 10A, FALL 1982

	CREDIT GRADES								NON-CREDIT GRADES				ALL GRADES	
	A		B		C		D		F		W			
	$\bar{X}$	%ile	$\bar{X}$	%ile	$\bar{X}$	%ile	$\bar{X}$	%ile	$\bar{X}$	%ile	$\bar{X}$	%ile	$\bar{X}$	%ile
HIST 4A														
VOCAB	55.7	89	40.2	67	38.0	63	35.7	58	63.5	95	28.9	40	40.7	67
COMP	54.3	87	44.6	62	46.0	66	42.0	54	47.0	69	37.0	38	44.8	62
TOTAL	110.0	90	84.8	66	84.0	66	77.7	56	110.5	90	65.9	37	85.4	68
N	6		10		8		3		2		8		37	
PHIL 10A														
VOCAB	59.7	92	57.9	91	38.8	64	32.0	49	36.0	59	41.6	69	47.2	79
COMP	48.6	74	49.4	76	42.6	56	28.0	14	54.0	86	42.8	57	45.0	63
TOTAL	108.3	89	107.3	88	81.4	62	60.0	29	90.0	73	84.4	66	92.2	75
N	7		22		28		3		1		5		66	

TABLE 2A.
CHI-SQUARED COMPARISONS OF NELSON-DENNY SCORES FOR STUDENTS
RECEIVING HIGH(A-B) AND LOW(C-D) GRADES IN HISTORY 4A, FALL 1982

	HISTORY 4A						
	GRADE				TOTAL CREDIT GRADES		
	A-B		C-D				χ^2
	f	%	f	%	f	%	
VOCABULARY							
1-33 %ile	1	25%	3	75%	4	15%	
34-66 %ile	3	60%	2	40%	5	19%	
67-99 %ile	12	67%	6	33%	18	67%	
All Scores	16	59%	11	41%	27	100%	2.355
COMPREHENSION							
1-33 %ile	1	33%	2	67%	3	11%	
34-66 %ile	7	70%	3	30%	10	37%	
67-99 %ile	8	57%	6	43%	14	52%	
All Scores	16	59%	11	41%	27	100%	1.339
TOTAL							
1-33 %ile	1	25%	3	75%	4	15%	
34-66 %ile	2	50%	2	50%	4	15%	
67-99 %ile	13	68%	6	32%	19	70%	
All Scores	16	59%	11	41%	27	100%	2.747

TABLE 2B.
CHI-SQUARED COMPARISONS OF NELSON-DENNY SCORES FOR STUDENTS
RECEIVING HIGH(A-B) AND LOW(C-D) GRADES IN PHILOSOPHY 10A, FALL 1982

	PHILOSOPHY 10A GRADE						
	A-B		C-D		TOTAL CREDIT GRADES		χ^2
	f	%	f	%	f	%	
VOCABULARY							
1-33 %ile			6	100%	6	10%	
34-66 %ile	3	25%	9	75%	12	20%	
67-99 %ile	26	62%	16	38%	42	70%	
All Scores	29	48%	31	52%	60	100%	11.327*
COMPREHENSION							
1-33 %ile	4	29%	10	71%	14	23%	
34-66 %ile	6	33%	12	67%	18	30%	
67-99 %ile	19	68%	9	32%	28	47%	
All Scores	29	48%	31	52%	60	100%	8.085**
TOTAL							
1-33 %ile			10	100%	10	17%	
34-66 %ile	3	30%	7	70%	10	17%	
67-99 %ile	26	65%	14	35%	40	67%	
All Scores	29	48%	31	52%	60	100%	15.150*

*significant at .01 level of confidence
**significant at .05 level of confidence

TABLE 3.
COMPARISONS OF MEAN($\bar{X}$) NELSON-DENNY TEST SCORES FOR STUDENTS RECEIVING CREDIT AND NON-CREDIT GRADES IN HISTORY 4A AND PHILOSOPHY 10A, FALL 1982

	CREDIT (A-D) $\bar{X}$	%ile	N	NON-CREDIT (W,F) $\bar{X}$	%ile	N	t VALUE
HISTORY 4A							
Vocabulary	42.5	71st	27	35.8	58th	10	-1.18
Comprehension	46.9	69th	27	39.0	44th	10	-2.04**
Total	89.4	72nd	27	74.8	52nd	10	-1.63
PHILOSOPHY 10A							
Vocabulary	47.9	80th	60	40.7	69th	6	- .97
Comprehension	45.0	63rd	60	44.7	61st	6	- .08
Total	92.9	76th	60	85.3	67th	6	- .72

*significant at the .01 confidence level
**significant at the .05 confidence level

ERIC CLEARINGHOUSE
FOR JUNIOR COLLEGES
MAY 30 1986